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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,525	09/10/2003	Hitoshi Yoshino	03500.009931.7	5353

5514 7590 06/29/2007  
FITZPATRICK CELLA HARPER & SCINTO  
30 ROCKEFELLER PLAZA  
NEW YORK, NY 10112

EXAMINER
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SCHWARTZ, PAMELA R

ART UNIT	PAPER NUMBER
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1774

MAIL DATE	DELIVERY MODE
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06/29/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/658,525	<b>Applicant(s)</b> YOSHINO ET AL.	
	<b>Examiner</b> Pamela R. Schwartz	<b>Art Unit</b> 1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 44-62 is/are pending in the application.
- 4a) Of the above claim(s) 53 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 44, 45, 54, 55, 57, 58, 60 and 61 is/are allowed.
- 6) ☒ Claim(s) 46-52, 56, 59 and 62 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. Claim 46, 50-52, 56, 59 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicants' admissions of pages 1-6 and 44 of applicants' specification. Applicants' disclose that it is known in the prior art to include titania as an additive within pseudoboehmite (see p. 44-45). On page 45, applicants describe the prior art as "[I]n the mixed system, the titanium dioxide is partly exposed in the pore." From this description, there is titanium dioxide in the pores of the prior art alumina hydrate, although it is partially exposed. Therefore, the term "within" fails to distinguish the instant invention from the admitted prior art. Coating amounts of claims 50 and 51 are conventional and would have been obvious to one of ordinary skill in the art. The ratio of pigment to binder of claim 62 and the materials of the support of claim 59 are conventional as evidenced by Misuda et al. (5,104,730, col. 4, lines 6-11) and Butters et al (4,857,386, col. 3, lines 48-64) respectively. Therefore, it would have been obvious to one of ordinary skill in the art to form the admittedly old recording layer with conventional ratios of binder and pigment on a conventional support material.

2. Claims 46-52, 56, 59 and 62 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. That the alumina hydrate is formed by mixing aluminum dodeoxide and isopropyltitanium prior to hydrolysis is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). See [0191] of US 2004/0048008, the pre-grant publication document for this application. From the specification, it is critical for the invention that the titanium dioxide be present

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entirely within and exposed in the pores of the aluminum hydrate. This is accomplished with the process step set forth above. Since this is a critical step in the process, the disclosure is not considered to be enabling for the instant claims.

3. Claim 53 remains withdrawn from consideration.
4. Claims 44, 45, 54, 55, 57, 58, 60 and 61 are allowed.
5. Applicant's arguments filed 3/38 and 4/30/07 with respect to the prior art rejection have been fully considered but they are not persuasive. This rejection has been clarified above with respect to applicants' current claim language. In addition a new ground of rejection under 35 USC 112 has been added. All other grounds of rejection have been withdrawn or have been overcome by the filing of a terminal disclaimer.
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pamela Schwartz whose telephone number is (571) 272-1528.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano, can be reached on (571) 272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

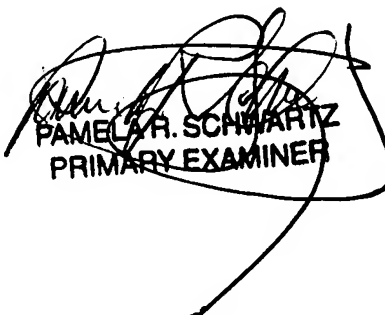
Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

PRSchwartz

June 25, 2007



PAMELA R. SCHWARTZ  
PRIMARY EXAMINER